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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,291	12/12/2003	Jean Cotteret	LORE:009US	9949

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EXAMINER

ELHILO, EISA B

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,291

Applicant(s)

COTTERET ET AL.

Examiner

Eisa B. Elhilo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-49 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-8,10,11 and 22-49 is/are rejected.
7) ☒ Claim(s) 9 and 12-21 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

1 This action is responsive to the amendment filed on May 20, 2005.

The rejection of claims 1-8, 10-11 and 22-48 under 35 U.S.C. 103(a) as being unpatentable over Laurent et al. (US 2003/0046431 A1) in view of Lim et al. (US 6,461,391 B1) and further in view of Murakami (US 2003/0145395 A1), is withdrawn because of the applicant's amendment.

2 The cancellation of claim 2 is acknowledged. Pending claims are 1 and 3-49.

NEW GROUND OF REJECTION

Claim Rejections - 35 USC § 103

3 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-8, 10-11 and 22-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent et al. (US 2002/0046431 A1) in view of Lim et al. (US 6,461,391 B1) and further in view Cannell et al. (US 5,681,554).

Laurent et al. (US' 431 A1) teaches a hair dyeing composition comprising oxidation bases such as para-phenylenediamine compounds represented by a formula (1), in which R1 and R2 form together with the nitrogen to which they attached a 5- or 6-membered nitrogen-containing heterocyclic ring (see page. 10, formula (1) and page 12, paragraph, 0270) and wherein the composition further comprises vitamins and provitamins such as panthenol (see page 21, paragraph, 0466), cationic polymers as claimed in claim 36 (see page 17, paragraph, 0393), thickeners and surfactants as claimed in claims 37-38 (see page 21, paragraph, 0466), other

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oxidation bases such as para-aminophenol as claimed in claim 39 (see page 12, formula (III)), wherein the oxidation bases are presented in the amount of 0.0005% to 12% which is within the claimed range as claimed in claim 40 (see page 13, paragraph, 0312), couplers such as 1,3-dihydroxybenzene (meta-diphenol) in the amount of 0.005 to 5% as claimed in claims 41-43 (see page 13, paragraph, 0314), direct dyes as claimed in claim 44 (see page 13, paragraph, 0317), hydroxylated solvents such as ethanol as claimed in claim 45 (see page 10, paragraph, 0254), oxidizing agents such as hydrogen peroxide as claimed in claim 46 (see page 21, paragraph, 0469). Laurent et al. also teaches a similar process for dyeing hair comprising applying to the hair the dyeing composition as described above and wherein the process is similar to those as claimed in claim 47 (see page 22, paragraph, 0477). Laurent et al. further, teaches multi-compartment devices for dyeing hair, which are similar to those, claimed in claim 48 (see page 27, claim 66).

The claims differ from the reference by reciting cationic tertiary para-phenylenediamines and as oxidation bases and vitamin derivatives chosen from specific vitamin species.

Lim et al. (US' 391 B1) in analogous art of hair dyeing formulation, teaches a composition comprising oxidation base of cationic tertiary para-phenylenediamine having a formula (1), which is similar to the claimed formula (1), when in the reference formula (1), R, R1 and R2 are alkyl radicals, R4 is hydrogen atom or an alkyl radical and R5 is a hydrogen atom (see col. 2, lines 44-50) and when in the claimed formula (1), R2 represents the onion radical Z of the claimed formula (II), R3 is a hydrogen atom, n is 1 or 0 and R1 is an alkyl radical. The cationic tertiary para-phenylenediamine is represented in the amount of 0.01 to about 5.0%, which is within the claimed range as claimed in claim 33 (see col. 3, lines 43-46). Lim et al.

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further, teaches the compounds 1-(4-aminophenyl)-N,N-dimethyl-N-pentylpyrrolidin-3-ammonium iodide and 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethylpyrrolidin-3-ammonium iodide which are structurally similar to the claimed compounds as claimed in claims 22-26 (see col. 19, Example 22 (compound 7) and col. 26, Example 29 (compound 14)).

Cannell et al. (US' 554) in other analogous art of hair dyeing formulation, teaches a composition comprising the claimed vitamins as claimed in claims 27-32 (see col. 7, The table) and wherein the vitamins are presented in the amounts of 0.01 to 5% (see col. 7, lines 17-18). It is further taught by Cannel et al. (US' 554) that the addition of the vitamins to the dyeing composition enhance the protective efficacy of the composition (see col. 1, lines 58-62).

Therefore, in view of the teachings of the secondary references, one having ordinary skill in the art at the time the invention was made would be motivated to formulate such a dyeing composition by substituting the heterocyclic para-phenylenediamine oxidation base of Laurent et al. by the cationic tertiary para-phenylenediamines as taught by Lim et al. and to incorporate the vitamins as taught by Cannell et al. in the composition of Laurent et al, with a reasonable expectation of success. Such a modification would be obvious because Laurent et al. as a primary reference discloses the genus of para-phenylenediamine compounds as oxidation bases and vitamins in the dyeing composition. Lim et al. as a secondary reference clearly teaches that the quaternized pyrrolidine compounds are suitable primary intermediates for hair coloring compositions for providing good oxidative coloration of hair such as light fastness, fastness to shampooing, fastness to permanent wave treatment and suitable for providing a wide variety of different color shades with various primary intermediate and coupler compounds (see col. 2, lines 13-20). Cannell et al. as a secondary reference teaches that vitamins are used in the dyeing

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composition for their antioxidants and/or ultraviolet absorbent properties, and, thus, a person of the ordinary skill in the art would be motivated to substitute para-phenylenediamine oxidation bases of Laurent et al. by the cationic tertiary para-phenylenediamines of Lim et al. for providing good oxidation coloring of hair and to incorporate the vitamins of Cannellet al. as common vitamins that used in the hair treating formulation with a reasonable expectation of success for improving the dyeing properties of the composition and protecting the hair as well from ultraviolet effect, and would expect such a composition to have similar properties to those claimed, absent unexpected results.

Allowable Subject Matter

4 Claims 9 and 12-21 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose cationic para-phenylenediamine compounds of the claimed formula (II), in which x is equal 1. the prior art of record also do not teach or disclose para-phenylenediamine compounds of the claimed formulae (III) and (IV).

Response to Applicant's Arguments

5 Applicant's arguments filed on 5/20/2005 have been considered but are moot in view of the new ground(s) of rejection.

6 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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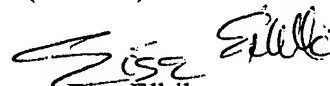
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 28, 2005


Eisa Elhilo
Patent Examiner
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